

**Problem Statement:**

- To design a database and an application for an online retail store system.

**Scope of the Project:**

- This project aims to build a database management system for a retail application for the customers to buy products online.
- A user would be able to survey through the various products added by the retailer on their website and add them in their cart which can be amended later anytime.
- The user could later checkout with their products in the cart and would be redirected to the payment's portal.
- After the payment the retailer is notified, the order is then shipped by them.
- The real time status of the delivery of order could be tracked by the user, which would be constantly updated by the retailer.

**Stakeholders:**

- Customers (the people who will buy the products)
- Retailers (the people who are registered on the website as sellers)
- Delivery Partners.
- Admin

**Entities:**

- **Customer** (USER\_ID, FIRST\_NAME, LAST\_NAME, EMAIL, CONTACT\_NUMBER, ADDRESS)
- **Retailer** (RETAILER\_ID, FIRST\_NAME, LAST\_NAME, CONTACT\_NUMBER, ADDRESS)
- **Order** (ORDER\_ID, PRODUCTS, DELIVERY\_STATUS, PAYMENT\_STATUS)
- **Delivery Partner** (PARTNER\_ID, FIRST\_NAME, LAST\_NAME, REVIEWS, PREV\_ORDERS, CURR\_ORDER)

**Tech stack:**

- **Front-end:** HTML, CSS.
- **Back-end:** Flask, Python, MySQL.

**Technical Requirements:**

- Ensuring correct accessibility for all the stakeholders in the database.
- Fabricating a well-linked data management system, integrating well between the dbms and website.
- Handling large amount of data.
- Avoiding concurrency issues.
- Ensuring good encryption of data and privacy.
- Delivery guys request handling and reviewing.
- Retailers stocking of new items and categories.
- Customers personalizing their experience of the online retail store.
- Admin managing the Data of all the people involved in the retail, from the delivery partners to the retailers and customers, the admin ensures that every small operation is done satisfactorily.

**Functional Requirements:**

- Customers create their account, and with purchases get access to special offers.
- Adding, removing, replenishing, and updating details of the products that can be added by the retailer.
- Filtering products and sorting based on various parameters can also be done.
- Users can customize their cart however they like.
- Retailers can register themselves on the website and start adding their products, and their stock respectively.
- Different databases will be fabricated in accordance with the required functionalities.
- Payments can be made in whichever way the customer likes. COD is not available beyond a certain amount in the cart.
- Once the payment is done, the transporter and the various other details regarding the tracking of the order is shared with the user.
- Cancelling of the order can also be done, and once the delivery is done, the users would be allowed to drop reviews of the products.
- If the customers would have any questions regarding the functionality of the product, they'd be allowed to drop a message to the retailers.